



EXECUTIVE SUMMARY

Assessing Potentially Hazardous Environmental Exposures Among Military Populations

USU-AFHSC Symposium and Workshop

19-21 May 2010



Throughout history veterans have been associated with deployment or other military work-related environmental exposures. Often, concerns about the risk associated with the exposure were raised years after the exposure occurred.

In conjunction with the Uniformed Services University of the Health Sciences (USUHS) and the Center for Disaster and Humanitarian Assistance Medicine (CDHAM), the Armed Forces Health Surveillance Center (AFHSC) sought to address these issues by hosting a symposium and workshop entitled "Assessing Potentially Hazardous Environmental Exposures Among Military Populations" in Bethesda, Maryland. Over 100 participants from the Department of Defense, Department of Veterans Affairs, the Institute of Medicine, private industry and academia attended this 3-day event.

The symposium was shaped by concerns about occupational exposures of deployed U.S. military personnel over the last fifty years. Examples of these included Agent Orange during the Vietnam War, the Kuwaiti oil well fire emissions in Gulf War I (Operation Desert Storm), and exposures to US-operated burn pits and burning sulfur pits in Iraq during Operation Iraqi Freedom.

Dr. Alvin L. Young described in detail the issues surrounding the use of herbicides in Vietnam. The US response to the Kuwaiti oil well fires was discussed by Dr. Jack Heller and Dr. David Deeter. Several speakers addressed the concern about and the careful assessment of potential environmental exposures when U.S. forces entered the Balkans in the 1990s and improvements in the way the Department of Defense approached these types of exposures. Later events in Operation Iraqi Freedom revealed that we still unfortunately have much to learn about identifying, preventing and addressing environmental threats to US Forces.

Speakers and workshop discussion groups provided recommendations regarding educating military

personnel about environmental risks, preparing for environmental exposures before they occur, taking action to prevent or mitigate these events, having current monitoring equipment and laboratory capabilities where needed, and improving environmental exposure risk communication. Symposium participants noted that these topics must be addressed in a standardized manner across Service lines and between U.S. Government agencies.

Proceedings of the May 2010 event were published as a supplement to the journal **Military Medicine** (Vol. 176, Issue 7, July 2011, 112 pages). With only few exceptions, the symposium presentations are presented as articles within the Military Medicine supplement. Each workshop group provided a manuscript of their findings and recommendations. Covered in the proceedings are comprehensive reviews of past exposures, lessons learned, gaps in assessing and responding to potentially hazardous exposures, and the follow-up of people who may have been exposed. The Vietnam Agent Orange experience and the burning oil wells of the 1991 Gulf War are reviewed in considerable detail. Progress in responding to decade-old recommendations of the Institute of Medicine is a core theme. Dr. Paul J. Lioy and Dr. Rosemary K. Sokas stressed the relevance of the symposium's topics in the context of the challenges faced during the 2001 World Trade Center attack and the 2010 Gulf of Mexico oil spill crisis.

PROCEEDINGS PUBLICATION

This Military Medicine supplement may be purchased from the Association of Military Surgeons of the United States (AMSUS). When ordering (\$20 for domestic orders, \$30 for foreign orders) scroll down to "Supplemental Issues" and select July 2011. The supplement is available at: <http://www.amsus.org/index.php/journal/supplemental-issues>.

ACKNOWLEDGEMENTS: AFHSC would like to thank the symposium speakers and participants for their presentations and engaging discussions. Special thanks go to CPT Erin E. Richards for her invaluable contributions in supporting this symposium. The opinions expressed herein are the views of the authors and do not reflect the official position of the Department of Defense or any of its organizations.